A Development-friendly Prioritisation of Doha Round Proposals

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1. INTRODUCTION

THE 'Doha Development Agenda' of November 2001 puts poverty-reducing economic growth at the centre of the WTO's considerations. If the development focus of the Doha Round is to be a meaningful operating principle, then the overriding task of the round must be to ensure that the liberalisation agreements promote development in poor countries. In practice this means prioritising reforms which yield the largest benefits to developing countries; helping governments move towards good trade policies; and dealing effectively with the implementation constraints faced by poor members.

A prerequisite for the first of these objectives is comprehensive analysis and comparison of the different effects of various reform proposals. Yet there is surprisingly little economic analysis of the precise consequences of potential trade agreements on participant countries. Where analytical studies have been done, they have not penetrated into the core of negotiations and do not seem to play a central role in setting the agenda. The absence of this type of analysis begs the question of what is driving the prioritisation of trade issues on the WTO agenda, other than a mélange of prevailing orthodoxies and the momentum of special-interest groups?

This paper attempts to support progress towards a development-friendly agreement by reviewing the potential benefits and costs of liberalisation across various

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trade and factor flows. We review the evidence on the global and developing country welfare effects of liberalisation in four areas: agricultural trade; services; the temporary movement of natural persons; and manufactured goods trade. This analysis is a first step to ensure that priority is given to those elements of the agenda that deliver the largest gains to developing countries.

WTO negotiations are complex, slow and prone to the kinds of setbacks exhibited at Cancun. For small and poor countries, the human and financial resources required to participate in negotiations and research issues are relatively high. So a second motive for comparative analysis is therefore to ensure that the WTO focuses on capturing the 'low hanging fruit' and avoids protracted disputes over issues of lesser value. Reform proposals should be prioritised with a view to maximising the welfare gains for the marginal unit of effort.

Several conclusions which we believe are relatively robust emerge from the empirical survey below.

First, the evidence suggests that there are gains still to be realised from a market access agenda. As summarised in Figure 2, a large share of these potential gains could accrue to developing countries. This underscores the value of multilateral trade negotiations and the importance of getting the Doha Round back on track.

Second, the size of potential gains from liberalisation in different areas gives cause for a re-evaluation of the current focus of negotiations. The estimated welfare gains from those negotiating areas which consume considerable attention are estimated to yield smaller benefits than other reforms on which there has been less progress.

A development-friendly market access agenda would focus more attention on increasing the international mobility of unskilled workers. It would also recognise that there is unfinished business in the liberalisation of industrial goods, particularly related to the persistent protection of labour-intensive manufactures. While there are significant gains available from reform in agriculture and services, these sectors require a fine grained approach – which balances the price effects of producers and consumers in developing countries – if liberalisation is to deliver maximum gains to developing countries.

The Doha Round contains a large set of non-market access issues, which might also offer important benefits to developing countries.[1] These non-market access issues are not the subject of this paper.

[1] For a brief review of non-market access priorities in the Doha Round, see Stiglitz and Charlton (2004).

2. PRIOR HYPOTHESES

As developing countries enter the trade negotiations, the natural question to ask is what agreement would make the most difference for them, i.e., what should they be trying to get?

The two most important features which distinguish developed from less developed countries are factor endowments and the extent and nature of market imperfections. Developing countries are abundant in unskilled labour; their greatest shortage is in the ownership of physical capital and the accumulation of knowledge and technology. Developing countries are disproportionately in the tropics[2] and, currently, are more engaged in the export of commodities, including natural resources. For these and other reasons, developing countries differ in the products that they export and import. Thus decisions about which goods and services to liberalise, and for which there should be restrictions on subsidies, can make a great deal of difference to the global distribution of welfare following trade liberalisation.

There has been a dramatic transformation in the industrial pattern of the global economy. In the nineteenth century, the advanced industrial economies transformed themselves from agriculture into manufacturing. Now, they are transforming themselves from manufacturing economies into service and knowledge economies.[3] Meanwhile, the developing world itself is divided into several groups: subsistence agriculture (much of Africa); export agriculture (particularly Brazil and Argentina); and those breaking out of agriculture and becoming increasingly centred on manufacturing.

For the agricultural exporters, the failure to liberalise trade in agriculture and to remove subsidies has been particularly costly. Trade-distorting measures of industrialised nations displace the agricultural exports of developing countries. By suppressing world prices,[4] these policies have a direct effect on farm incomes. Diao, Diaz-Bonilla and Robinson (2003) report that protectionism and subsidies by industrialised nations cost developing countries about US$24 billion annually in lost agricultural and agro-industrial income.[5] Moreover, there may be dynamic

[2] Geographical features of developing countries may have a large effect on their development experiences; see Gallup, Sachs and Mellinger (1998).

[3] Today, only 14 per cent of employment and output in the United States is in manufacturing, and the fraction in Europe is not much higher. Developed countries' share of world trade in manufactures has fallen from 90 per cent in 1970 to 72 per cent in 2000 (World Bank, 2002).

[4] Estimates of the downward impact on world prices caused by OECD domestic support are between 3.5 and 5 per cent for many agricultural commodities including wheat & other coarse grains and oilseeds (Dimaranan et al., 2003).

[5] According to their estimates, Latin America and the Caribbean lose about US$8.3 billion in annual income from agriculture, Asia loses some US$6.6 billion, and sub-Saharan Africa close to US$2 billion. Their estimates do not include dynamic effects.

effects when investment is suppressed in countries whose trade is affected by OECD support. Consequently, agricultural reform will be a key component of a Development Round.

While agriculture is important for most developing countries,[6] many have dramatically diversified their industries and moved up the value-added ladder. In low income countries, the share of manufactures in total exports rose from 20 per cent in 1981 to more than 80 per cent in 2001. Much of this effect is due to the remarkable growth of the two largest developing countries, India and China, but even an unweighted average across the low income countries shows a rise from 25 per cent to 50 per cent (World Bank, 2004). Over the same period, growth in exports of primary commodities has been relatively weak in low income countries (2 per cent per annum) and far outstripped by the growth of processed agriculture (8 per cent) and textiles (15 per cent).[7] Thus, developing countries have a strong interest in the further liberalisation of manufactured goods.

In addition to the liberalisation of trade in goods, differences in factor payments across countries provide evidence that factor movements would increase global productivity. If factor payments equal marginal products,[8] then the largest discrepancies are associated with the payments to unskilled labour, then to skilled labour, and lastly to capital. Accordingly, agreements that provide for the mobility of unskilled labour would do most to increase global efficiency.

Another consideration is the pervasiveness of market imperfections in developing countries. The general argument in favour of trade liberalisation is that it allows the expansion of the size of markets, allowing the global economy to take further advantage of the economies of scale (the argument Adam Smith put forward more than 200 years ago), and it enhances global efficiency in production and exchange. The factor price equalisation theorem stipulates conditions under which trade in goods and services leads to full global efficiency, substituting for the free mobility of factors. However, those conditions are highly restrictive and the standard argument that trade liberalisation necessarily makes all countries better off (though not necessarily all individuals within each country) is predicated on a set of assumptions that may not be satisfied in many developing countries: full employment, perfect competition, and perfect capital and risk markets. In many developing countries where unemployment is high and markets are imperfect, trade liberalisation may have different effects to those anticipated in simple models, and these should influence the agenda of negotiations.

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[6] Agriculture accounts for 40 per cent of GDP in developing countries and 70 per cent of employment (World Bank, 2002).

[7] These numbers are similar for the low income group after excluding India and China. Growth for the other low income countries only was 7 per cent in processed agriculture and 14 per cent in textiles (World Bank, 2004).

[8] They may not, and the disparity between factor payments and the value of marginal products may differ across countries, if the degree of market imperfections differs.

3. COMPUTABLE GENERAL EQUILIBRIUM MODELS

The bulk of useful regional-level empirical studies use computable general equilibrium (CGE) models. We do not place much faith in the actual values derived from CGE analysis,[9] but they do highlight many interesting general equilibrium effects and enable us to draw inferences from comparisons across alternative scenarios. These models enable us to observe the effects of various liberalisation experiments on trade volumes, prices and incomes. Simulations can separately determine the effects of reform on different sectors and on different countries and regions. The connection between exogenous trade reforms and welfare outcomes is complex, and determined in CGE models by the scope and functional form of the model and values of demand elasticities and other key parameters.

Table 1 summarises the results of recent CGE studies of various liberalisation scenarios. Results differ quite widely even across similar experiments. This variation has several sources. One is that the models differ significantly in scope – in the number and range of sectors and regions considered. The models also differ in structure: constant returns to scale versus increasing returns, perfect versus imperfect competition, as well as choosing different baseline scenarios. In services, the models are sensitive to fairly unreliable estimates of the size of government trade restrictions in the services sector.

CGE models have several limitations, and often do not incorporate key features of developing countries. In particular CGE models often do not account for the presence of persistent unemployment in developing countries. In the presence of unemployment, trade liberalisation may simply move workers from low productivity protected sectors into unemployment. This lowers the country's national income and increases poverty. There can be multiplier effects, so that the total impact is far greater than the direct effect. Much of the opposition to trade liberalisation arises because of the perceived effects on unemployment. In more developed countries, monetary and fiscal policy should, in principle, enable the country to maintain close to full employment. However, in many developing countries, with persistent unemployment[10] government policies might be unable to maintain full employment. Even if trade liberalisation had no impact on the equilibrium level of unemployment, it may take the economy considerable time to adjust, and the costs of adjustments – lost income and increased poverty – may be considerable.

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[9] CGE models were widely criticised following the Uruguay Round for what were subsequently perceived to be overestimates of the gains from the round. For a discussion see Safadi and Laird (1996).

[10] In 2001 average unemployment rates reached 14.4 per cent in Africa, 12.6 per cent in transition economies, and 10 per cent in Latin America.

TABLE 1
Estimates of Welfare Effects from Multilateral Trade Liberalisation

Authors and Model Features	*Liberalisation Experiments*	*Global Effect (US$bn)*	*Developing Countries (US$bn)*
	Agriculture		
Diao, Somwaru and Roe (2001) ♠ ♣ □ **	(i) Removing all agricultural supports and protections	31	3
	(ii) Removing all tariffs	25	6
	(iii) Removing domestic supports in the developed countries	3	–2
	(iv) Removing export subsidies, worldwide	0	–2
Hertel, Anderson, Francois and Martin (1999) ♣ □ *	(i) 40 per cent reduction in all agricultural protection	70	15
	(ii) Same excluding production subsidies	60	15
Francois, van Meijl and van Tongeren (2003) ♠ ♣ □ **	(i) Full liberalisation of border measures	97	25
	(ii) Liberalisation of OECD border measures	39	4
	(iii) Liberalisation of non-OECD border measures	59	21
	(iv) Full liberalisation of OECD domestic support	12	–2
Anderson, Francois, Hertel, Hoeckman and Martin (2000) ♠ ♣ □ *	(i) Full liberalisation of all protection	165	43
	(ii) Full liberalisation of all protection in OECD	122	31
	(iii) Full liberalisation of all protection in non-OECD	43	12
Brown, Deardorff and Stern (2001) ♠ ♥ § *	33 per cent reduction in post-Uruguay protection of agriculture	–3	–16
Dee and Hanslow (2000) ♥ § ◙	Elimination of all post-Uruguay trade barriers in agriculture	50	
UNCTAD (2003) ♠ ♣ □ **	(i) 50 per cent cut in all agricultural tariffs	22	10
	(ii) Elimination of export subsidies in agriculture	–2	–6
	(iii) Tariffs are reduced by 50 per cent on processed agriculture	12	6
Dimaranan, Hertel and Keeney (2003) ♣ □	(i) 50 per cent reduction in OECD domestic support	—	–0.4
Hoekman, Ng and Olarreaga (2002) ♠ □	(i) 50 per cent cut in all agricultural tariffs	14	2
	(ii) 50 per cent cut in domestic support	0.3	–0.2
	Services		
Hertel, Anderson, Francois and Martin (1999) ♣ □ *	40 per cent cut in business services and construction protection	22	6
	40 per cent cut in trade and transport protection	332	110

Francois, van Meijl and van Tongeren (2003) ♠ ♣ □ **	(i) Full liberalisation of border measures	53	15
	(ii) Liberalisation of OECD border measures	38	5
	(iii) Liberalisation of non-OECD border measures	15	11
Brown, Deardorff and Stern (2001) ♠ ♥ § *	33 per cent reduction in post-Uruguay protection of services	414	71
Dee and Hanslow (2000) ♥ § ◙	Elimination of all post-Uruguay trade barriers in services	135	133 (45 ©)
Verikios and Zhang (2004) ◙ § ♠	Full trade liberalisation in telecommunications	24	18
	Manufacturing		
Hertel, Anderson, Francois and Martin (1999) ♣ □ *	40 per cent reduction in mining and manufacturing tariffs	70	51 (28 ©)
Francois, van Meijl and van Tongeren (2003) ♠ ♣ □ **	(i) 50 per cent liberalisation of border measures	17	15
	(ii) 50 per cent liberalisation of OECD border measures	16	8
	(iii) 50 per cent liberalisation of non-OECD border measures	12	–6
Anderson, Francois, Hertel, Hoeckman and Martin (2000) ♠ ♣ □ *	(i) Full liberalisation of all protection in textiles	17	12
	(ii) Full liberalisation of textiles in OECD	3	3
	(iii) Full liberalisation of textiles in non-OECD	14	9
	(iv) Full liberalisation of all protection on other manuf.	70	50
	(v) Full liberalisation of other manuf. in OECD	14	22
	(vi) Full liberalisation of other manuf. in non-OECD	55	28
Brown, Deardorff and Stern (2001) ♠ ♥ § *	33 per cent reduction in post-Uruguay tariffs on manufactures	163	50
Dee and Hanslow (2000) ♥ § ◙	Elimination of all post-Uruguay trade barriers in manuf.	80	—
	Labour Mobility		
Walmsley and Winters (2002)	Developed countries receive extra 3 per cent of their labour forces in TMNP	156	78
Winters (2001)	50 million developing country workers employed in developed countries each year	300	—
Scollay and Gilbert (2001) ● *	Complementary effect of increased labour mobility on full agricultural liberalisation	127	42

Model features:	♠ Static	□ Perfect competition	* GTAP 4 database
	● Dynamic	§ Monopolistic competition	** GTAP 5 database
	♣ Constant returns to scale	© Estimate with China removed from sample	◙ FTAP database
	♥ Increasing returns to scale		— not calculated

Notes:
Welfare changes are measured in Equivalent Variation changes, i.e., by the money transfers necessary to make individuals indifferent between the status quo and the post-reform situation.

Another important assumption made in most of the analyses is that there is no uncertainty. But changes in trade regimes affect countries' exposure to risk. In the absence of good insurance markets, there can be first-order welfare effects arising from this increased exposure to risk.[11] For instance, with a quota, those who compete with imports know precisely how much will be imported, and therefore, if there is relatively little domestic volatility, they will face relative little price uncertainty. But with the tariffication of quotas, countries are exposed to considerably greater volatility.[12]

A third problem is that most of the tools used to analyse general equilibrium effects of trade liberalisation are static models. They describe the movement from one 'steady state' to another but do not incorporate the costs associated with transition or the consequences for economies which are initially out of steady state. Fourth, CGE models usually do not take pre-existing distortions into account. For instance, tax policies (often advocated by international institutions), which effectively tax the informal sector less than the formal sector, already distort production in favour of the informal sector. In this context, trade regimes which further lower the international price of agricultural goods, typically produced by the informal sector, have a larger adverse effect than would be the case if tax policy were more neutral.

Finally, CGE models do not address the fact that implementation and adjustment costs are likely to be larger in developing countries. High unemployment rates, weak safety nets, and poor risk markets are all features of developing countries that have to be taken into account in conducting a comprehensive relative incidence analysis. If trade liberalisation has a large effect on inequality, then governments may be required to strengthen their redistributive welfare system. Larger taxes generate increased deadweight loss, which reduces the efficiency gains from liberalisation.

Given these many deficiencies, we consider the results of CGE models with considerable caution. It is important to take care to analyse estimates in the context of the assumptions used to generate them and to be wary of comparisons of estimates from different models. We present these models not because we believe that they provide definitive results on the costs and benefits of trade liberalisation, but because they call attention to some of the key issues and because they are one of the few evidence-based guides of the relative merits of WTO proposals.

[11] For instance, Dasgupta and Stiglitz (1977) show that the change from quotas to tariffs may expose countries to much greater risk. Newbery and Stiglitz (1984) show that the adverse effects from increased exposure to risk may be so much greater that everyone in both countries may be worse off. See also Dixit (1989) for analysis of alternative risk scenarios.

[12] The incidence, in this case, depends on the extent to which there are disturbances in the domestic markets, and the extent to which the external disturbances are correlated with the domestic disturbance.

4. AGRICULTURE

The 'development' component of the Doha Round has come to be symbolised by agricultural issues. Agriculture was the first substantive item listed in the work programme of the Ministerial Declaration launching the Doha Round, and it was arguably at the centre of the failure at Cancun. Developing countries made it clear both before[13] and during[14] the Cancun meeting that progress on agriculture was their primary objective.[15]

This prioritisation raises two questions. First how important (relative to other potential reforms) is agriculture for the welfare of developing countries, and second, are the specific issues receiving attention within the agricultural agenda the most important issues for development?

We make two points in this section. The first is that agriculture, though important for developing countries, is not the only important issue, nor even the largest potential area of welfare gains for developing countries. Aggregating the seven studies of full agricultural liberalisation in Table 1, and controlling for the scope of the experiments by scaling up the partial liberalisation results, we find that the average reported potential gain from agricultural liberalisation for all developing countries is US$12 billion. This is by far the smallest of the average estimates across the four areas considered in Figure 1. Moreover, despite the presumption that agriculture is a 'developing country' issue, the empirical studies surveyed suggest the proportion of absolute global gains accruing to developing countries is 16 per cent in agriculture – a far less progressive result than for the other three areas (Figure 2). As discussed earlier, there are several reasons why CGE studies may understate the benefits of agricultural reform, but the point is clear: agriculture is not the only prize worth working towards in multilateral negotiations.

The second point is that there is some discrepancy between the type of agricultural reforms being sought by developing countries and the type of agreement that would be of most benefit to them. Within agricultural negotiations, developing countries have focused doggedly on the three issues specified in the Doha Ministerial Declaration:[16] (a) substantial improvements in market access, (b) reductions

[13] Section 7 of 6 June, 2003, Communication from Argentina, Bolivia, Botswana, Brazil, Chile, China, Colombia, Cuba, Dominican Republic, Ecuador, El Salvador, Gabon, Guatemala, Honduras, India, Malaysia, Mexico, Morocco, Nicaragua, Pakistan, Paraguay, Peru, Thailand, Uruguay, Venezuela and Zimbabwe (TN/C/W/13), makes it clear that 'Reform of agricultural trade is of central importance for many developing countries' and is '*an essential ingredient of the negotiation and its outcome*' (original emphasis).

[14] See the statements by Minister Celso Amorim of Brazil, speaking on behalf of G21 at the Cancun plenary session of 13 September, 2003.

[15] Oxfam (2000) argues that 'agriculture is the key to unlocking the Doha development agenda, and without constructive steps on this issue, the broader negotiations cannot really restart'.

[16] Domestic support, market access and export competition were the first, second and third listed items respectively in the G21's Framework for Establishing Modalities on Agriculture.

FIGURE 1
Average Welfare Gains from Full Liberalisation Experiments in Agriculture, Manufacturing and Services, and Partial Liberalisation of Labour* (US$bn)

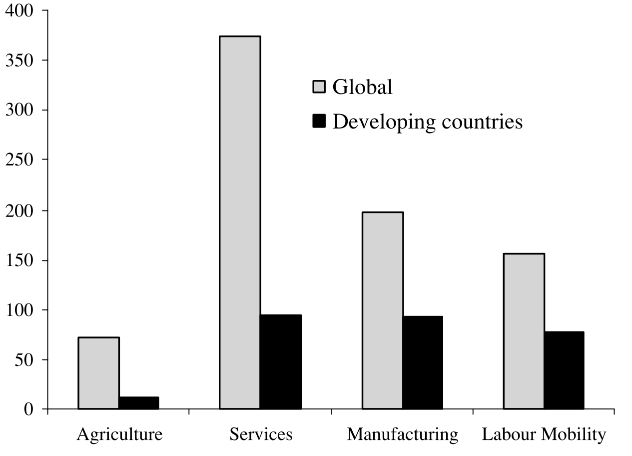
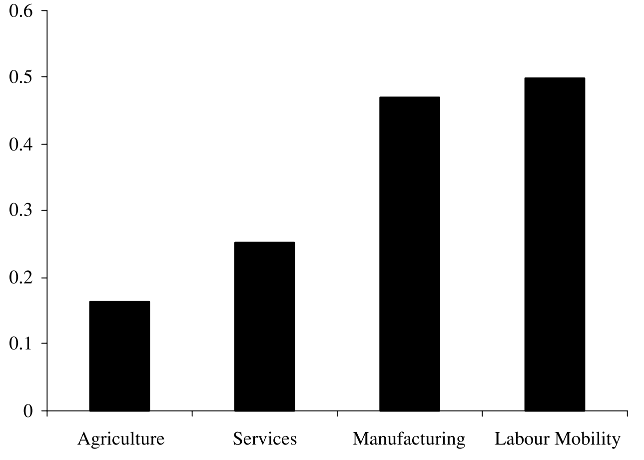


FIGURE 2
Proportion of Welfare Gains Accruing to Developing Countries



Note: These figures are indicative only. Averages are extracted from imperfectly comparable models and experiments.
* Labour mobility estimates based only on partial liberalisation experiment in Walmsley and Winters (2002) which revised Winters (2001).

Source: Authors' estimates from full and scaled-up partial liberalisation experiments listed in Table 1.

of, with a view to phasing out, all forms of export subsidies, (c) substantial reductions in trade-distorting domestic support.[17] These issues (widely interpreted

[17] See Doha Ministerial Declaration, Section 13 (WTO, 2001).

as imposing obligations primarily on protected markets in OECD countries)[18] have shaped the expectations of developing countries for the round, and the perceived lack of compromise from OECD countries has become a lightning rod for critics of the developed countries' trade policies.[19]

However, the empirical evidence gives some cause for doubt about the appropriateness of this agenda. Table 1 reports the results of four studies of the effects of eliminating OECD domestic support for agriculture and two studies of the effects of removing OECD export subsidies. All six estimates suggest these reform measures would have a negative effect on aggregate welfare in developing countries. Yet these policies make up two of the three key positions adopted by developing countries in their trade positions and one of the most common demands made by pro-development NGOs.[20] As we have discussed, these CGE results are by no means definitive and, as we will shortly discuss, on closer inspection they do not suggest that there is no development benefit in OECD agricultural reform.[21] However, they do give cause for a thorough investigation of the evidence.

The (national) real income effects of liberalisation are dominated by two factors: (i) the change in allocative efficiency, and (ii) the change in terms of trade. Gains from allocative efficiency are realised when market distortions are removed, permitting the economy to reallocate its resources to the most productive use. These benefits accrue largely to the liberalising region itself. In agriculture they are partially reflected in the large efficiency gains accruing to the highly distorted agricultural markets in the EU, the US and Japan (where agricultural producer support as a proportion of gross farm receipts is 36, 24 and 59 per cent respectively). The terms of trade effect comes from changes in a country's export prices relative to its import prices.

[18] In their Framework for Establishing Modalities on Agriculture, of 14 September, 2003, the G21 propose the requirement that 'all developed country members having the higher trade distorting subsidies making greater efforts'.

[19] Oxfam (2000): 'The international trade in food and agricultural products is highly distorted and manipulated by more powerful trading nations, and in the process the impact on vulnerable populations is neglected. Governments in Europe and the US may profess faith in free-trade principles, but when it comes to agriculture there is a wide gulf between principle and practice'.

[20] Oxfam (2000): 'It is clear that in the interest of fair trade and a "level playing field" agricultural export subsidies should be banned'.

[21] Eliminating developed country agricultural subsidies is likely to benefit producers, and hurt consumers in developing countries. In developing countries, the (net) producers (and the labourers who rely on agricultural production) are among the poorest, so they are the ones who benefit, even if the country *as a whole* is a grain importer, so the country as a whole loses. Moreover, within most developing countries, there are limited mechanisms of redistribution, so that it does not suffice to assess what happens *on average*. In addition, if the funds that the developed countries spend on subsidies were diverted into aid, then even the consumers could presumably normally be made better off.

Developing countries face the benefits of increased market access and the (potential) costs of higher prices for domestic consumers. The fundamental point is that consumers benefit from lower prices that result from large agricultural subsidies, and producers lose. The net effect of wide-ranging agricultural reform varies across developing countries depending on the composition of their exports and imports of different commodities, and the price sensitivity of those commodities to liberalisation. This analysis highlights the need for a more fine-grained approach, which would differentiate among crops and countries.

One important determinant of the net effect of this kind of reform is the level of protection for each commodity and the consequent impact of liberalisation on prices. Tariffs are particularly high in the feed grains, dairy and food grains sectors, while dairy products, meat and livestock are the world's most subsidised exports. Producer payments are highest for grains and oilseed sectors and lowest for meat, livestock and dairy (Hertel et al., 1999). Dimaranan, Hertel and Keeney (2003) examine the average world price impacts of cutting domestic support in all industrialised countries for all agricultural commodities by 50 per cent. They find that domestic support has the largest upward effect on price for programme crops (wheat, corn, barley, rice) and ruminant livestock (beef) while sugar and dairy, which are mainly protected by tariffs, show small price declines.

The next important determinant of the welfare effects of liberalisation is the agricultural trade balance across countries. There is a division between temperate products (programme crops and livestock) where developing countries are largely net importers and developed countries are largely net exporters, and tropical products for which developing countries are largely net exporters. Most developing countries are net importers of programme crops,[22] which are precisely the commodities that have the highest domestic support and stand to experience the largest price increases. It is therefore not surprising that most studies predict that most developing countries are worse off as a result of the terms of trade effects following this kind of reform. Indeed Dimaranan, Hertel and Keeney (2003) find that gains accrue primarily to developed countries in the Cairns group as well as the two largest developing country exporters, Argentina and Brazil. These countries are the strongest advocates for the existing agricultural reform agenda.

The existence of net losses for developing countries in some areas of reform should not imply that no reform is required – rather it suggests that a selective approach is needed. The most important subsidies to eliminate would be those where the consumption benefits are small relative to the production costs.

[22] This includes Mexico, 'Rest of South America' (a regional average which excludes Argentina and Brazil), China, Indonesia, Korea, 'Rest of South Asia' (a regional average which excludes India), Tanzania, Zambia, 'Rest of Sub-Saharan Africa' (a regional average which excludes Tanzania and Zambia), and the average of the Middle East and North African countries. Brazil, India, Argentina and Vietnam are net exporters (Dimaranan, Hertel and Keeney, 2003).

Developing countries should focus their attention of the elimination of tariffs and quotas on tropical products, processed foods and other commodities which they export or for which they have high export elasticities with respect to price. Elimination of cotton subsidies would raise producer prices for cotton, but have a small effect on standards of living in developing countries as a result of the small increase in the price of cloth. Similarly, subsidies for crops which are disproportionately consumed by the wealthy will have the least adverse distributional effects. Soy beans, for instance, may largely go into the production of animals (beef and chicken).

Finally, developing countries should reflect on the items that are missing in the Doha Declaration. First, the Declaration does not foreshadow further attempts to reduce export dumping. Second, one of developing countries' most important proposals, the 'development box' that would allow poor countries to shape their farming and food policies to maximise development, is also absent.

5. TEMPORARY LABOUR MIGRATION

The General Agreement on Trade in Services (GATS) recognises four modes of service delivery. The temporary movement of natural persons (Mode 4) has received by far the smallest attention in terms of the volume of scheduled concessions. Yet differences in factor payments across countries provide evidence that factor movements would increase global productivity. If factor payments equal marginal products,[23] then the largest discrepancies are associated with the payments to unskilled labour, then to skilled labour, and lastly to capital. Accordingly, agreements that provide for the mobility of unskilled labour would do most to increase global efficiency.

At the same time, such agreements would significantly improve living standards in developing countries through the remittances that they would generate,[24] through the accumulation of capital which would be repatriated when such individuals return to the country of origin, and through the general equilibrium effects on relative factor supplies within the developing countries. The temporary movement of less skilled workers from developing countries (where they are in oversupply) to developed countries (where they are relatively undersupplied)[25] is

[23] They may not, and the disparity between factor payments and the value of marginal products may differ across countries, if the degree of market imperfections differs.

[24] In 2002, the Inter-American Development Bank reported $32 billion in remittances sent to the countries of Latin America and the Caribbean. This was far greater than total ODI and only slightly less than foreign direct investment (Ellerman, 2003).

[25] Foreign workers can be an important source of labour in developed countries. London's catering industry depends on migrants for 70 per cent of its labour force and a large proportion of seasonal agricultural workers are foreign (Home Office, 2001).

estimated to increase world welfare by hundreds of billions of dollars, even if the scale of the labour flow was modest. The empirical studies surveyed in Table 1 suggest that an expanded Mode 4 could generate large welfare gains from relatively limited reform. Walmsley and Winters (2002) estimate that a flow of workers to developed countries equivalent to 3 per cent of their labour forces would generate a global welfare gain of US$156 billion. For these reasons a development round of trade negotiations should accordingly focus on what can be done to facilitate migration of unskilled labour and surrogates for unskilled labour – trade in unskilled-intensive commodities and services.

Yet despite the tremendous development potential of this reform, the limited progress that has been made in this area has been largely associated with the intra-corporate movement of skilled personnel – an issue of interest to developed countries. Thus far, Mode 4 has not progressed in a way that allows developing countries to use their comparative advantage in low and medium skill labour-intensive services. To make progress toward unlocking the potential benefits of labour mobility, WTO members should seek to expand and facilitate subcontracting, abolish economic needs tests, reduce administration costs for migrant workers and extend temporary worker schemes to agriculture and manufacturing.

Developed countries could also do more to facilitate remittances. Governments have a role to play in maximising both the value of remittances and their impact on development. Efforts to formalise the structure of remittance flow (much of which currently moves through informal channels) could make it easier, safer and cheaper to transfer funds. For example, governments could ensure migrants have access to secure and low-cost financial services and regulate remittance-handling intermediaries to prevent malpractices. As well as increasing the flow of remittances, remittance policies can improve the development impact of remittances at the receiving end. For example, micro-finance and micro-enterprise support initiatives have encouraged remittance-receiving clients (especially small businesses) to access credit and savings accounts.[26] Finally, the further development of remittance-backed bonds could help liquidity-constrained developing countries to use future flows of remittances to raise external finance relatively cheaply.[27]

[26] For an example initiative in this area see the case of the financial institution PRODEM in Bolivia which focuses on the promotion of savings and the offer of new financial services to remittance receivers; see UNDP (2003). A number of best practice scenarios from Latin America and Asia were presented and documented in the November 2000 ILO conference in Geneva on ‘Making the Best of Globalization: Migrant Worker Remittances and Micro-finance’.

[27] In 2001, Banco do Brasil issued $300 million worth of bonds through Merrill Lynch using the future yen remittances from Brazilian workers in Japan as collateral. The terms of these bonds were more favourable than those available on sovereign issues (with a BBB+ Standard & Poor’s rating compared to BB− on Brazil’s sovereign foreign currency rating). For a review of securitisation of remittance flows see Ketkar and Ratha (2000).

6. MANUFACTURING

The significant liberalisation of manufacturing tariffs in developed countries over the last two decades might suggest that there is little to gain from further negotiations on industrial products. However, if this is true to some extent for developed countries, it is certainly not the case for developing countries. While average developed country tariff rates are low, they maintain high barriers to many of the goods exported most intensively by developing countries. When weighted by import volumes, developing countries face average manufacturing tariffs of 3.4 per cent on their exports to developed countries, more than four times higher than the average rate faced by goods from developed countries, 0.8 per cent (Hertel and Martin, 2000).

Moreover, aggregate data hide the existence of tariff peaks. In the United States, post-Uruguay-Round tariff rates on more than half of textile and clothing imports are between 15 and 35 per cent, while in Japan 22 per cent of textile imports face tariffs of 10–15 per cent (UNCTAD, 1996). Similarly in the processed food sector, Canadian, Japanese and EU tariffs on fully processed food are 42, 65 and 24 per cent respectively. By contrast, the least processed products face tariffs of 3, 35 and 15 per cent in these countries (World Bank, 2002). Such tariff peaks are manifestly unfair and have a particularly pernicious effect on development by restricting industrial diversification in the poorest countries.

A second reason that developing countries should be pushing to have industrial tariffs prioritised in the Doha Agenda is that barriers to south-south trade are quite high. The average import-weighted tariff on the exports of manufactured goods from developing countries to developing countries is 12.8 per cent (Hertel and Martin, 2000). Anderson et al. (2000) estimate that the welfare gains to developing countries derived from the liberalisation of trade in manufactures by other developing countries is US$31 billion.

The average estimate of the potential gain to developing countries from full manufacturing liberalisation experiments in Table 1 is US$90 billion.[28] The estimates vary widely among studies but are in general higher than the gains from agricultural reform. In addition, developing countries get a larger proportion of the gains from liberalisation of manufacturing trade than they do from other reforms (Figure 2).

7. SERVICES

The studies in Table 1 report very large potential gains from the liberalisation of services. For agricultural and manufacturing, most CGE models report results

[28] These figures should be interpreted with caution. The gains from partial liberalisation scenarios were linearly scaled up for the purpose of indicative comparison.

dominated by two main effects – allocative efficiency gains and changes in terms of trade. For services liberalisation, movements of capital across borders generate additional effects. First, foreign direct investment inflows and outflows can lead to an expansion or contraction in the capital stock located within a region and changes in capital endowments affect national income. A second effect on income works through the rents earned on foreign direct investment. Rents are created by barriers to services trade which fall during liberalisation. In some models, rents on output are separated from rents on ownership. Rents on output are retained by incumbent firms and accrue to the selling region whereas rents on ownership are transferred away to the region of ownership. Liberalisation of services thus affects the distribution of the capital stock and affects the returns to that stock.

The bulk of the empirical studies surveyed below suggest that the liberalisation of services could yield significant welfare gains – much larger than the gains from agricultural or manufactured goods. The estimates are large because protection levels are high in the service sector, and services make up a large (and growing) share of world trade. Additionally services are key inputs into the production of almost all goods.

However, the large predicted gains from service sector liberalisation have to be weighed against the relative complexity of service sector reform where the identification and elimination of trade barriers is significantly more difficult than in merchandise trade. In particular, three concerns commonly arise. First, there is a view that only a small fraction of service sector reform is actionable through WTO negotiations. Second, several important elements of the reform agenda (particularly liberalisation of restrictions on foreign direct investment within Mode 3 service delivery)[29] are successfully progressing through unilateral policy changes outside the WTO. Third, multilateral commitments within the WTO are seen by several developing countries as a particularly blunt instrument of reform, lacking the flexibility to deal with the country-specific implementation challenges thrown up by liberalisation in the service sector. Together these concerns contribute to the continued low priority given to GATS commitments within the overall agenda. This is unfortunate because it undervalues the significant and growing service export interests of developing countries and also because it has drawn attention away from those policy proposals (scattered throughout the agenda) which could facilitate and improve the effectiveness of unilateral reform in developing countries.

Many developing countries have large and growing export interests which could be pursued in the Doha Round. The substantial growth in offshore outsourcing (Modes 1 and 2)[30] has led to high growth rates of exports from developing

[29] Mode 3 refers to trade in services delivered through foreign commercial presence, particularly foreign subsidiaries of multinational firms.
[30] Service delivery through Modes 1 and 2 refer to cross-border supply and consumption abroad respectively.

countries in particularly business services[31] and ICT, but also in health, education and audiovisual services. Barriers to trade in these areas include national authorisation, local authentication requirements and regulatory standards. There is significant scope for liberalisation in Mode 1, which lags behind Mode 3 both in terms of the number and scope of commitments. The Uruguay Round left many areas of Mode 1 trade without bound commitments. A large proportion of commitments provided only partial market access (60 per cent in legal services; 78 per cent in voice telephone services; 41 per cent in accounting; see Matoo and Wunsch, 2004). In several areas where developing countries have a comparative advantage there is a case for broad formulaic rules in favour of national treatment and increased market access.

At the same time there are other non-market access reforms which could complement service sector reform and increase the benefits available to developing countries. The tourism sector (Mode 2) is one of the most important sources of foreign exchange for many developing countries. While the sector is generally quite liberal in terms of government restrictions,[32] developing countries suffer from rampant anti-competitive activities within the industry which minimise spillover and multiplier effects. In this and other areas (for example, maritime transport), an effective multilateral anti-trust framework could deliver large gains to developing countries and support further unilateral liberalisation.

The same is true in Mode 3 liberalisation where the enthusiasm for FDI in the cross-country empirical literature is tempered by negative experiences at the national level. While it is true that the unilateral liberalisation of restrictions on foreign investment continues apace without multilateral action, there are nonetheless several opportunities for WTO action which could increase the benefits that developing countries derive from the liberalisation of FDI. For example, developing countries' experiences with FDI could be improved by agreements to limit the adverse consequences of competition for investment through fiscal and financial incentives[33] and also by agreements to allow for anti-trust enforcement between jurisdictions.

Another problem is that, in many cases, the ramifications of the particular measure extend well beyond the impacts on trade. Inevitably, then, debates about service sector liberalisation devolve into fundamental debates about national economic and social policy. Should the media, for instance, be controlled by a few rich, foreign firms, who are able to use their wealth to control the flow of information to the citizenry? A further concern is that many service sector

[31] In India exports of business services grew by 43 per cent between 1995 and 2000 (Matoo and Wunsch, 2004).
[32] There have been a high number of commitments in major tourism sectors. In particular hotels and restaurants (123 members). See WTO (1999).
[33] For a discussion of harmful tax practices see OECD (1998). For welfare losses from international tax competition see Charlton (2003).

liberalisations might have social consequences for the poor, for example, by increasing prices of essential services or by reducing access. Opening up markets has been accompanied at times by a reduction in competition, and an increase in prices;[34] in the case of financial services, there are even allegations that the supply of credit to medium and small domestic enterprises has been reduced. Private firms may be less willing to engage in cross-subsidisation of market segments in poor and rural areas. Even if liberalisation leads to lower average costs through increased competitiveness and efficiency, prices for some end-users may rise. The WTO could promote service sector liberalisation by acting to mitigate (or at least not exacerbating) these concerns through other parts of the agenda. For example, regulatory agreements which constrain the ability of governments to avail themselves of appropriate industrial, social and redistributive policies might reduce the incentive for governments to engage in liberalisation programmes which entail adjustment costs.

Service sector reform offers large benefits to developing countries but is not receiving commensurate attention in the Doha Round. Yet there is much that the WTO could do to unlock welfare gains from service sector reform including pursuing the developing countries' market access agenda in labour-intensive and outsourced services and in promoting reform in other parts of the agenda to amplify the benefits of service sector liberalisation and limit its costs.

8. CONCLUSION

This paper has surveyed empirical evidence from one type of empirical study with a view to determining a development-friendly prioritisation of the Doha Round market access agenda across four major market access issues. Computable general equilibrium studies, despite their manifold deficiencies, provide the best available estimates (properly interpreted to account for their assumptions) with which to compare the cross-country effects of reform proposals.

The first conclusion from the empirical review in Table 1 is that the Doha Round is worth pursuing for the large welfare gains it has the potential to deliver. However, to some extent, Figures 1 and 2 give cause for a re-evaluation of developing countries' priorities for the round.

A second conclusion is that a true development round has to go well beyond agriculture. Despite the common view that agriculture is the dominant development

[34] For example, privatisation of utilities – such as South Africa's experience of granting its newly privatised telecommunications utility Telekom a five-year monopoly – can lead to inefficient services. Similarly the poor regulation of financial sectors across South East Asia contributed to instability prior to the crises of the late 1990s. Poor electricity deregulation has led to problems in many countries.

issue, developing countries clearly have interests in other areas. The agenda must include agriculture because, for the reasons outlined in Section 4, successful agricultural reform will have a large development impact. Also there can be no principled trade agreement without including agriculture and, as a consequence, it has taken on enormous symbolic value. At the same time developing countries should also be pushing for progressive market access reform in manufactured goods, particularly the elimination of tariff peaks on labour-intensive goods; and for (carefully implemented) reform in some key service industries; and for significant progress in unskilled labour mobility.

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